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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,793	10/18/1999	TAKESHI WADA	P186-9025	1812

7590 04/08/2005

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EXAMINER

CAO, ALLEN T

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 04/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/419,793

Applicant(s)

WADA ET AL.

Examiner

Allen T Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-13 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/8/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-6 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bajorek et al (US. 5,465,186).

Bajorek et al disclose a head suspension assembly having a magnetic head slider 50 with at least one thin film head element (figures 2a and 2b); a support member 73 for supporting the magnetic head slider at a top end portion thereof; a drive circuit (figures 6a-6c) electrically connected to the at least one thin film magnetic head element; and at least two diode elements (box 77, figures 617 and 6c) connected toward one direction in parallel with terminals which are connected across the at least one thin film magnetic head element. Bajorek et al also inherently disclose that each diode element having a turn-on voltage higher than the maximum output voltage of the at least one thin film magnetic head element because Bajorek et al disclose that these diodes are protected for damaging the head; therefore, it should known that the turn on voltage of the diode must be at least equal or greater than the voltage of the head in order to protect the head from being damaged as set forth in claim 1. Bajorek et al further disclose that the diodes are formed within IC chip (figure 7, claim 3); wherein the IC chip is mounted on the support member (figure 7, claim 4); the at least one thin film head includes a MR effect element and an inductive recording element (figures 2a, 2b

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for claims 6 and 10). Bajorek et al further inherently disclose that the IC chip is mounted on the printed circuit board (claim 5).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bajorek et al.

Regarding claims 7-9 and 11-13, Bajorek et al do not disclose that the MR element is a type of anisotropic, giant or tunneling.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the MR element of Bajorek et al with one of such MR types as set forth, supra through an obvious engineering routine choice in an MR element technology. No new to replace from one type of the MR element to another type of MR element.

Response to Arguments

5. Applicant's arguments filed 12/7/04 have been fully considered but they are not persuasive.

In the REMARKS, Applicant asserts that Bajorek et al is not a proper basis for rejection because two diodes of Bajorek et al are not connected "toward one direction" as recited in claim 1.

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The Examiner respectfully points out that Applicant only claims that the diodes are connected "toward one direction". Applicant does not claim that the diodes are connected "toward one direction" with same polarity. Here, Applicant broadly claims two diodes connected "toward one direction", but Applicant does not mention that the polarity of the two diodes are same direction. Therefore, the Examiner maintains that Bajorek et al has been disclosed that the diodes are connected "toward one direction" as broadly claimed by Applicant's claim language as set forth, supra in the above Office Action.

6. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither discloses nor suggests a magnetic head assembly having all limitations including the limitations of diodes as recited in claim 1 and further limitations of that the diode has a turn on response speed sufficient to prevent leakage of an electrostatic discharge current from causing pin-inversion on the at least one thin film magnetic head element (see also Applicant's argument in page 6 of the REMARKS).

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao
Primary Examiner

AC
April 05, 2005